

Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the application.

1. (Currently Amended) A clamping and adjustment apparatus for a cutting tool, comprising:
a plate-shaped cutter insert being prestressable and fastenable by means of a prestressing and fastening device defining a tension screw with its bottom surface against a seat surface such that it is supported with lateral wall sections in a positionally fixed manner on a cutter support, comprising:
an adjustment wedge which can be actuated by means of a pressure screw in a direction (V) that extends essentially parallel to the seat surface; and
wherein said adjustment wedge is accommodated in the cutter support in a form-fitted and displaceable manner over which the cutter insert is supported and adjusted;
wherein the pressure screw is arranged acting at an angle with respect to the adjustment wedge surface on a actuation wedge by means of which the adjustment wedge is actuatable;
wherein the actuation wedge and the adjustment wedge are arranged in a common wedge receptacle extending in the displacement direction (V); and
wherein the adjustment wedge and the actuation wedge are formed as recesses on a single-piece double wedge pin.

2. (Original) The clamping and adjustment apparatus according to claim 1, wherein the cutter insert is pressable by means of a grip head by the prestressing and fastening device with a first lateral wall section against an adjustment wedge surface of the adjustment wedge.

3. (Currently Amended) The clamping and adjustment apparatus according to claim 1, wherein the cutter insert is pressingly prestressable and fastenable by means of a grip head in the closed state of the prestressing and fastening device with a second lateral wall section formed at an angle to the first lateral wall section against a guide stop arrangement, including a guide surface on the cutter support.

4. (Previously Presented) The clamping and adjustment apparatus according to claim 3, wherein a sharp-edged corner of the cutter insert is bordered by the adjustment wedge surface and the guide surface on which the lateral walls of the cutting insert are supported essentially all over, the displacement direction (V) of the adjustment wedge deviating maximally 75° from the axial direction (A),.

5. (Currently Amended) The clamping and adjustment apparatus according to claim 1, wherein between the adjustment wedge surface and the actuation direction (V) of the adjustment wedge, a wedge angle (α_1 ; α_3 ; α_6) of about between 1° and 50°, particularly between 5° and 25°, is provided;

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Currently Amended) The clamping and adjustment apparatus according to claim 18, wherein the pressure screw extends from the tool perimeter essentially radially towards the tool axis (A).

10. (Currently Amended) The clamping and adjustment apparatus according to claim 18, wherein the recesses on the double wedge pin are formed to be wedge-shaped.

11. (Original) The clamping and adjustment apparatus according to claim 9, wherein the actuation wedge is formed by a conical recess.

12. (Original) The clamping and adjustment apparatus according to claim 10, wherein pressure screw has a front-side pressure surface which is formed to be conical surface-shaped so that the pressure screw abuts rotatably on its pressure surface on the actuation wedge.

13. (Original) The clamping and adjustment apparatus according to claim 12, wherein the cone angle of the pressure surface corresponds to the cone angle of the conical recess so that the pressure screw abuts in a line shape on an actuation wedge surface.

14. (Previously Presented) The clamping and adjustment apparatus according to claim 9, wherein the pressure screw is pressable on the front side on a coaxially guided pressure wedge which has a pressure surface for pressure transfer to the actuation wedge surface of the actuation wedge.

15. (Previously Presented) The clamping and adjustment apparatus according to claim 14, wherein the pressure surface on the pressure wedge is adapted to the actuation wedge surface such that it abuts two-dimensionally.

16. (Currently Amended) The clamping and adjustment apparatus according to claim 16, wherein thean adjustment wedge angle ($\alpha_1; \alpha_3; \alpha_6$) is smaller than thean actuation wedge angle ($\beta_1; \beta_3$).

17. (Currently Amended) The clamping and adjustment apparatus according to claim 18,
wherein the adjustment wedge surface and the actuation wedge surface are provided
concavely on the double wedge pin.

18. (Currently Amended) The clamping and adjustment apparatus according to claim 18,
wherein the adjustment wedge surface and the actuation wedge surface are provided
convexly on the double wedge pin.

19. (Currently Amended) The clamping and adjustment apparatus according to claim 18,
wherein the double wedge pin is formed as a cylinder pin and is arranged in a
corresponding wedge receptacle drill hole.

20. (Currently Amended) The clamping and adjustment apparatus according to claim 18,
wherein the double wedge pin is arranged as a pin with a trapezoidal cross-section, which
is arranged perpendicularly to the seat surface secured in a corresponding wedge
receptacle.

21. (Previously Presented) The clamping and adjustment apparatus according to claim 1,
wherein an ejection spring whose spring force acts contrary to the displacement direction
(V) against the adjustment wedge.

22. (Previously Presented) The clamping and adjustment apparatus according to claim 1,
wherein a limiting stop which limits the maximum displacement (Δk) of the adjustment
wedge.

23. (Currently Amended) A rotationally driven cutting tool, with at least one clamping and adjustment apparatus according to claim 1, wherein the plate-shaped cutter insert is prestressable and fastenable by means of a tension screw with its bottom surface against a seat surface such that it is supported with a first lateral wall section in a positionally fixed manner on a surface of the clamping and adjustment apparatus, and wherein the tension screw is screwed down through a through hole with a nut part which is displaceably supported in the cutter support in a nut part guide receptacle with a degree of freedom in a nut part guide direction (E) which has a component (E_k) perpendicular to the first lateral wall section.

24. (Original) The cutting tool according to claim 23, wherein the nut part guide receptacle is a drill hole introduced in nut part guide direction (E) from out of the outer circumference of the cutter support and the nut part is a pin which is displaceable in the drill hole.

25. (Previously Presented) The cutting tool according to claim 23, wherein the cutter insert is supported on a second lateral wall section on a guide surface, the guide direction (E) having a component (E_f) perpendicular to the second lateral wall section.

26. (Previously Presented) The cutting tool according to claim 24, wherein the nut part guide receptacle extends towards a sharp-edged corner of the cutter insert which is bordered by the first and the second lateral wall section.

27. (Previously Presented) The cutting tool according to claim 23, wherein the guide direction (E) has a component (E_s) in the direction of the axis (S) of the tension screw.

28. (Previously Presented) The cutting tool according to claim 23, wherein a ratio of the component (E_s) in the direction of the axis (S) of the tension screw to the remaining components (E_k , E_f) of the guide direction (E) of about 10 - 50%.

29. (Previously Presented) The cutting tool according to claim 23, wherein the tool is configured as a step tool, the cutting insert to be set being provided on the step.

30. (Currently Amended) A tool cartridge for installation in a cutting tool, according to claim 23, wherein the a plate-shaped cutter insert is prestressable and fastenable by means of a prestressing and fastening apparatus, particularly a tension screw, with has its bottom surface against a seat surface such that it is supported with lateral wall sections in a positionally fixed manner on the cartridge, and wherein an adjustment wedge which is actuated by means of a pressure screw, said the adjustment wedge is accommodated in the tool cartridge in a form-fitted and displaceable manner over which the cutter insert is supported with a first lateral wall section.

31. (Currently Amended) The tool cartridge according to claim 30, wherein a tension screw for positionally-determined fastening of the tool cartridge is on the tool.

32. (Original) The tool cartridge according to claim 30, wherein a second clamping and adjustment apparatus with which the axial position of the tool cartridge is set on the tool.

33. (Original) The clamping and adjustment apparatus according to claim 5, wherein said wedge angle is about between 5° and 25°.

34. (Original) The cutting tool according to claim 28, wherein the ratio is about 20-35%.

35. (Original) The cutting tool according to claim 34, wherein the ratio is about 25-30%.

36. (New) The clamping and adjustment apparatus according to claim 1, wherein between the adjustment wedge surface and the actuation direction (V) of the adjustment wedge, a wedge angle (α_1 ; α_3 ; α_6) of about 5° and 25° is provided.

37. (New) A clamping and adjustment apparatus for a cutting tool, with a cutter support on which a plate-shaped cutter insert is prestressable and fastenable by means of a prestressing and fastening device with its bottom surface against a seat surface such that it is supported by lateral wall sections in a positionaly fixed manner on the cutter support, comprising:

an adjustment wedge, to be accommodated in the cutter support in a form-fitted and displaceable manner, which can be actuated in a direction (V) that extends essentially parallel to the seat surface wherein the cutter insert is supported and adjusted;

a pressure screw for actuating the adjustment wedge; and

wherein the clamping and adjustment apparatus includes an actuation wedge wherein the adjustment wedge may be actuated, and the pressure screw acts on the actuation wedge at an angle to the adjustment wedge, and the adjustment wedge and the actuation wedge are formed as recesses on a double wedge pin.

38. (New) A clamping and adjustment apparatus for a cutting tool, with a cutter support on which a plate-shaped cutter insert is prestressable and fastenable by a prestressing and fastening device such that a first surface of the insert is against a seat surface so the insert is supported by lateral wall sections in a positionaly fixed manner on the cutter support, the apparatus comprising:

an adjustment wedge, to be accommodated in the cutter support in a form-fitted and displaceable manner, which can be actuated in a direction (V) that extends essentially parallel to the seat surface;

a screw for actuating the adjustment wedge; and

wherein the clamping and adjustment apparatus further includes an actuation wedge, wherein the adjustment wedge may be actuated, and the pressure screw acts on the actuation wedge at an angle to the adjustment wedge, and the adjustment wedge and the actuation wedge are formed as recesses on a double wedge pin.